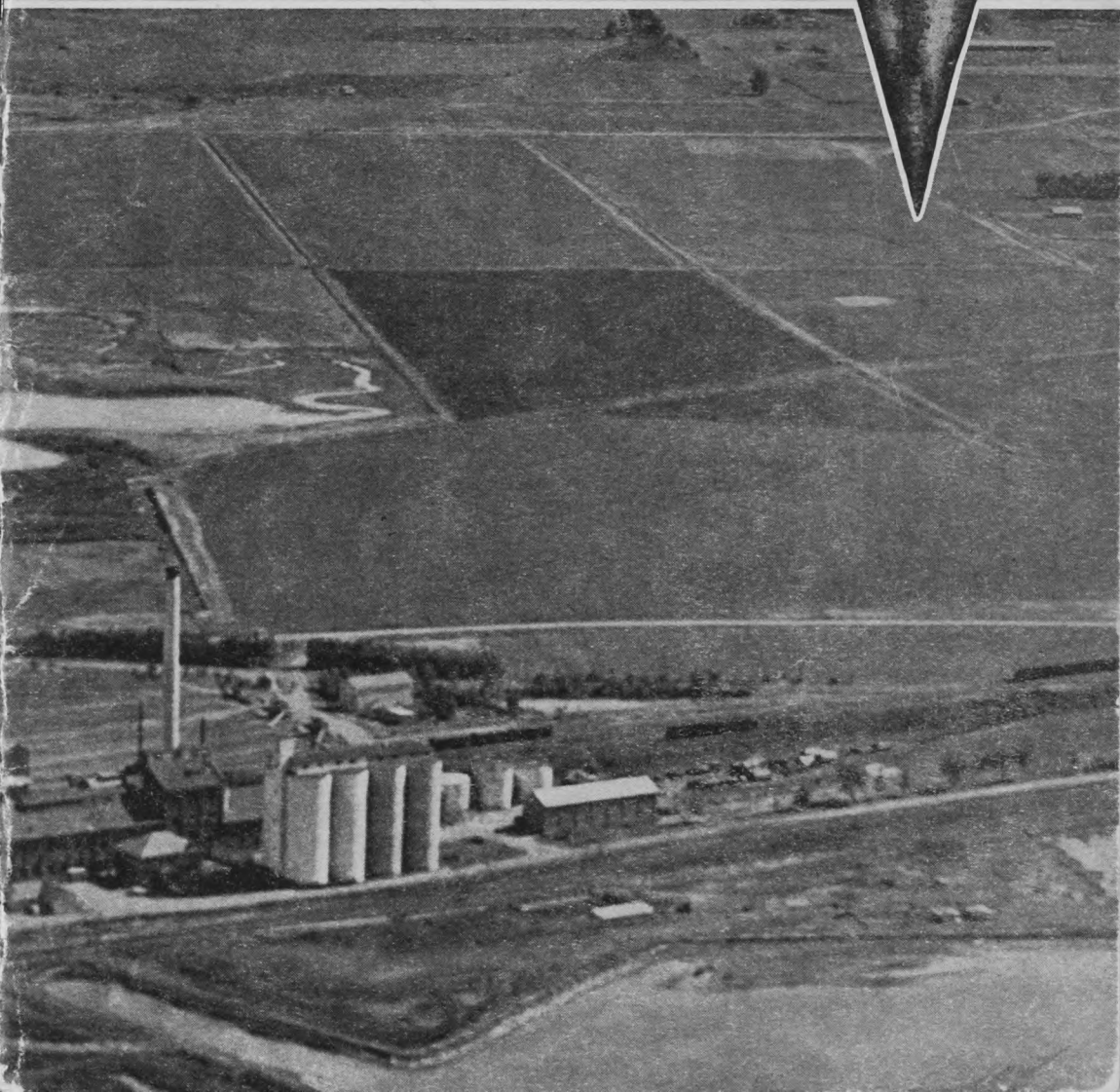
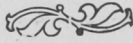


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1947

Silver Sunshine





The more extensive a man's knowledge of what has been done, the greater will be his power of knowing what to do.



SILVER SUNSHINE

Volume X

Fall Edition, 1947

Nearing The Home Stretch

The twenty-third beet crop is well on its way. Winter forebodings as to labor supply and the numerous other "chasms of adversity" which beset the farmer have been quite satisfactorily encountered, and passed into the realms of the by-gones.

The severe winter finally gave way to a rather late spring and a dry May. June did its best to even up the score by giving upwards of 4 inches of rain scattered over half of the days. Considerable warm weather is needed to put weight into the beets but July can usually be relied on to provide heat and dry weather.

The acreage of beets to be harvested will be about the same as 1946. What the result in sugar will be is still subject to the "idiosyncrasies" of the weather, the general care of the farmer and the extraction efficiency of the operators.

This season of the year brings into "bold type" the importance of two definite factors in beet production: **HOW I CAN SECURE THE BEST RESULT FROM THIS CROP**, and **WHAT MUST I DO NOW TO INSURE NEXT YEAR'S SUCCESSFUL PRODUCTION**.

In the first case, long years' experience has proven that consistent irrigation in time is the one important "must." High yields are usually coincident with early and frequent irrigations. Spring rains cannot be counted on to carry the crop very far into July, and irrigation by July 15th is usually necessary for best results. Rains for September are still uncertain but in spite of the wet conditions at harvest last fall, it still pays to keep beets moist right up to harvest. Beets irrigated last fall were very little different after 3 or 4 inches of moisture from rain and snow.

Late summer and early fall are ideal periods to apply manure to clover or summerfallow with enough water applied when necessary to keep it in condition to **promote** bacterial action and disintegrate humus.

Early fall plowing of well irrigated summerfallow or clover fallow is good for two to three tons of beets over no second plowing. Perhaps you do not need the money, but the country still wants and needs the sugar.

More Sugar For Canadians

T. Geo. Wood

It was recently announced by the Minister of Finance that the more ample supplies of sugar produced in 1946 and 1947 warranted an increase of 6 to 7 lbs. per capita over 1946 Canadian distribution, or about 14% more sugar than used last year. Plus an extra 3 lbs. to be given in September.

Part of this increase has been allowed to manufacturers and industrial users, the balance direct to consumers by extra coupons valid in August and November, also by derationing jams, preserves and honey, etc. This should allow the farm housewife to complete her full program of home canning.

It is expected that Canadian sugar consumption will reach 80 to 85 lbs. per capita in 1947 compared with 71 lbs. in 1946.

The United States has completely derationed sugar and while there was a short rush to stock up and replace household stocks, the sales now are only normal for this season of the year.

It is anticipated that Canada, by controlling the inventory stocks of industrial users, could shortly announce that ration control of sugar is no longer necessary in this country.

However, before this can be done, prudence would dictate that a reasonable stock pile of imported sugar be secured for Canadian consumption, and that this year's beet sugar production becomes assured, which probably carries rationing into late 1947 or early 1948. In either case more sugar can be expected.

Alberta sugar beet farmers have a guarantee of price protection, by the governmental Canadian Sugar Stabilization Corporation, until all the sugar produced from 1947 beets is marketed. They are therefore placed in an assured position, based on present sugar prices, for their entire crop.

World markets in sugar indicate that for a year at least, there will be no runaway prices or sudden depressions. Plans can thus be safely made for a normal production of sugar beets in 1948. Alberta expects to continue to supply each year 100,000,000 lbs. or more of Canadian sugar for Canadian consumption.

Happiness is a perfume that you cannot pour on others without getting a few drops on yourself.

The Soil - Man's Greatest Resource

*Extracts from address by Dr. F. S. Harris, President Utah State
Agricultural College, to members of A. I. C. Convention.*

One of the worst examples of recent despoiling of natural resources is found in the valiant little country of Greece, which had such unfortunate experiences during the recent war. She was the centre of ruthless attacks by Italy and then by Germany and she was also the victim of prolonged civil strife.

Recently it was my opportunity in connection with a mission sponsored by the United Nations Food and Agriculture Organization to study the devastation by war in the country and to recommend methods of restoring agricultural production. It was really heart sickening to see the havoc that had been wrought. The cutting of timber, the burning of villages, the destruction of roads and railroads, the damage to water storage facilities, irrigation and drainage systems, all show how quickly man may destroy the resources on which he is dependent for his sustenance.

Whether these resources are destroyed quickly as in times of war, or whether they are gradually sacrificed to greed, as they frequently are under selfish exploitation, the result is the same. It means poverty and misery for those who follow. The expense of restoration is much greater than that of timely conservation.

Coming nearer home, we find that in many parts of the intermountain west the growing of timber is much less important than the use of land for grazing practices. Extending from the foothills to the valley bottoms or out to the deserts are millions of acres of cheat-grass range. This is usually inferior to the range made up of native grasses found in areas before they were overgrazed. The cheat-grass furnishes only a short season of grazing and after it dries, it becomes a fire hazard.

The introduction of more valuable species, such as crested wheat grass, into these areas gives considerable promise since these grasses furnish much more valuable forage than the cheat grass and they also make a better sod to protect the land against erosion.

Unregulated, excessive grazing in many parts of the West has caused marked deterioration in the quality of the range and has resulted in damage from destructive erosion. Experiments in Davis County, Utah, have shown how this erosion can be lessened by limiting grazing and by surface treatments which reduce gullyng by heavy rains.

Overgrazing is a practice which is most ruinous and which is seriously condemned by those who are interested in conserving natural resources. It is bad not only because it leaves the soil exposed to destructive erosion, but also because of the secondary affect of allowing undesirables to come into the plant population in place of the more desirable and palatable species which are killed out because of being eaten too close to the ground. Thus, in a few years, a good range may be converted into a very inferior one merely by attempting to graze more livestock than the range is capable of carrying.

I am sure that enough examples have been given to make clear the facts that wasted natural resources may bring great hardship to those who attempt to live in areas where these resources have been destroyed, and that the reclamation of these areas is more difficult after they have been devastated than would have been their preservation by a conservation program. Whether it be a forest, a range, a watershed, the slope of the land, or the fertility of the soil, preservation is much easier than restoration.

Right here is where the human element comes into the problem. It is man himself who determines whether he will destroy and devastate and thereby pass on to posterity poverty and misery or whether he will think of the natural resources as a stewardship which he should use for his own needs, but which he should pass on to his successors undiminished and unspoiled by his use. It is certain that all cases of wasting resources have not resulted from selfishness alone; ignorance must be charged with at least part of the blame. Carelessness is doubtless the result of both selfishness and ignorance, but whatever the cause, the results are equally disastrous.

A young lawyer from the east hung out his shingle in a western cattle town, and in time was invited to address a Chamber of Commerce meeting. He was scared to death and showed it by giving a terrible performance.

His self-confidence was not restored when, at the conclusion of the meeting, three grim-faced cattlemen rose and, with a conspicuous display of ropes and guns, made directly for the speaker's table. The young lawyer was all for leaving by a convenient rear exit, but an older and more experienced head counseled him:

"Jest you set still, son. They ain't nobody a-goin' to harm you. Them fellers is a-comin' for the program chairman!"—David savage.

Education makes a people easy to lead, but difficult to drive; easy to govern, but impossible to enslave.

More Tons Per Acre For 1948

A. W. Hill

The farmer who is following a wise program of planning his operations a year hence will now be thinking of preparation for at least some of his beet acreage. Late summer irrigation will be a foremost factor in this planning. He has observed that poor preparations do not yield returns. Likewise he has observed that by following the proper procedure good results are obtained. For efficiency there must be preparation.

SUMMER IRRIGATION AND FALL PLOWING PAY DIVIDENDS.

Weed germination is encouraged. When land is allowed to remain in a dry condition many weed seeds lie dormant only to grow profusely with next year's crop. It is very expensive to raise weeds on a farm. Applying a late summer irrigation germinates many weed seeds which are subsequently killed by plowing and frost.



Controlled Fallow Irrigation Pays
while the beets are small.

An all important moisture reserve is built up whereby an early start and rapid growth is insured for the next crop. We clearly remember the spring of 1946, many fields being too dry to germinate seed. A very dry spring followed. In spite of "irrigating up" and subsequent rains, we had many late beets and irregular stands. When we have an adequate moisture supply such a hazard is largely defeated. The crop germinates quickly and can be thinned during cool

The availability of plant foods is also increased. With this proper summer moisture condition, the soil organism thrive and in so doing make nutrients available.

Organic plant residues are decomposed and with this the tilth of the soil is improved. The residues also yield food elements and without proper moisture this material remains lifeless and dry in the soil.

The amount of water wisely applied will vary with different farms. The drainage of the particular piece and soil type will have to be considered in determining what can be applied without being excessive, and producing undesirable results. This should not prove a problem in most cases however.

Let's be "up on the bit" with some good preparation. Proper late summer irrigation and a subsequent fall plowing is important in indicate extent of drainage eventually required in our region.

Another Way of Filling the Soil Reservoir

Annual Hubam clover should not be overlooked by farmers who are interested in keeping up the fertility level in their land. This legume is a comparatively new development and has gained much favor in the beet growing areas of the United States.

Making its growth in one year, this crop may fit well into the irrigated farm scene where high priced land makes summerfallowing expensive. It may also be used advantageously in the case of the small land holder who does not have the acreage to allow extensive summerfallowing.

Where barn-yard manure is not available, this green manure crop has much to offer. It may be planted separately and plowed down or it may be planted with grain, irrigated after the grain is taken off and plowed down. This clover makes quite a profuse green growth at 12 lbs. seed per acre and should prove very helpful in building up fertility.

The days of soil exploitation should be past. Each farmer should examine his program looking for more ways of building up the plant food supply. Hubam clover may be an answer to some farmers.

Restoration of fertility on lands having top soil removed in leveling operation should be restored through application of 12-15 tons of manure and 150 lbs. of 11-48-0 commercial fertilizer.

We ought not to look back unless it is to derive useful lessons from past errors, and for the purpose of profiting by dearly bought experience.

Some Soil Management Practices That Pay

Notes from Speech - Dr. Byron T. Shaw

It has been definitely proven irrigation was practised in Peru and in the Salt River Valley of Arizona before Columbus discovered America.

There is a great variability in soils of a given district and in some instances on the same farm. The farmer who says, "My soil is different," has spoken a truth. But if he knows it is different, is he finding out in what way it is different. What does it lack, in what does it have an abundance, what improvement can be made?

Excessive use of water in irrigation is detrimental to our soils. Less water and more levelling is needed for efficient farm management. Salts are always present in our soils, but, if soils get too strongly infected with salts, plant growth is retarded. All soils should be leached occasionally to eliminate salts.

- . . All irrigated districts must have drainage for efficient operation.
- . . Planned rotation of crops is essential.
- . . Alfalfa with clover and grasses is beneficial in crop rotation. An average increase of four tons per acre results when used in crop rotation. Falling yields are noticeable where legumes are not used.



When Sweet Clover is Planted and Plowed Down Residue Left in Soil is 50%.

- . . When corn is planted, residue left in soil is 17%.
- . . Manure and clover are much more productive than manure and corn.
- . . Very important to plow under manure as soon as applied.
- . . Value of manure when applied efficiently is \$2.36 to \$4.36 per ton.
- . . There has been an increase of 243% in the use of fertilizer since prewar days. Eleven dollars and thirty-four cents and \$10.90 per cwt. is the value placed upon commercial fertilizer used on potatoes in separate experiments during the last few years.
- . . There is no argument in manure vs. fertilizer. Use both.

In the irrigated districts of the United States crop returns could be increased 50% by well planned farm management.

Irrigation Development

Plans have been completed and officers elected for the establishment of a coordinating group to sponsor and direct irrigation expansion in Western Canada. A motor caravan consisting of 50 or 60 members from Manitoba and Saskatchewan came to the irrigated districts of Alberta in connection with the development of this organization. They were augmented by approximately 30 more irrigationists from Alberta and British Columbia and after completing an inspection trip of irrigation projects and irrigation development, proceeded to set up a permanent organization.

Their visit was high-lighted further by the announcement of the Honorable James G. Gardiner, Minister of Agriculture, that the Dominion Government would spend \$100,000,000.00 on irrigation development in the West. This is indeed a forward looking program and will prove to be the foundation stone for a firm and continued industrial development. Irrigated agriculture in the West is basic to stabilized populations and continued prosperity.

From the standpoint of moisture and temperature, segmented seed does just as well as whole seed and in less favorable conditions gives faster emergence.

Dust Bowls Necessary On Irrigated Farms?

A. R. McMullin

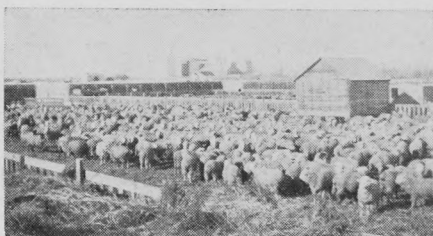
Every farmer will readily admit that he knows how to prepare his land for winter in the hopes that our Western gales will have no appreciable effect, yet each year our losses in early spring months from wind erosion are tremendous. These losses can be eliminated on irrigated land by proper use of the water and timely plowing.

In Southern Alberta, where land preparation for beets is largely by the summerfallow method, it is well to keep in mind that no matter how cloddy a field is left in the fall, that through weathering these clods may be broken to small particles of dust which are readily carried by the wind. No one method of winter preparation will be adequate for all types of soil in the districts of the South, but a good sure method is deep fall plowing after irrigation or ridging land with a duckfoot cultivator, with every second duckfoot removed or with a lister. This will prevent soil drifting until the frost has come out of the soil and it is possible to get on the land for cultivation.

It may here be suggested that preparation for winter can be better accomplished if irrigation is done early in the fall and followed by deep plowing. By this method rough cloddy soil can be brought to the surface whereas if irrigation is applied after plowing the clods present are moistened by the water encouraging early weathering and creating a fineness in the soil which encourages wind erosion. Late irrigation also leaches out surface fertility.

Pasturing off beet fields with sheep or cattle upon completion of the harvest adds to the dangers of soil drifting as livestock pulverizes the soil. A better method is to gather the feed from the fields and ridge up or fall plow the beet land as well as the summerfallow.

Excessive pasturing and trampling
contribute to soil drifting.



It is not to be assumed that all wind erosion will be eliminated by these suggestive methods but they are good safeguards and a step towards a good seed bed for next year.

Segmented Seed Observations

J. R. Salmon

Segmented seed has again withstood the adverse conditions of our northern climate and from all indications we shall harvest an average crop.

No one yet has ever been able to forecast the unpredictable weather of Sunny Southern Alberta. In summarizing the season thus far, we have had plenty of early spring moisture, then adverse drought and late May frost and finally early June rains which provided plenty of moisture but threatened the loss of many acres through untimely operations. This with numerous hail storms scattered over most of the area has caused many to wonder at the outcome.



Promising Field of Segmented Seed

The long handled hoe doing away almost entirely with stoop labor. The properly placed seeds produced plants spaced accordingly. Single plants were not stunted in growth or retarded in thinning. Hence the longer thinning season had little effect on the condition of the crop.

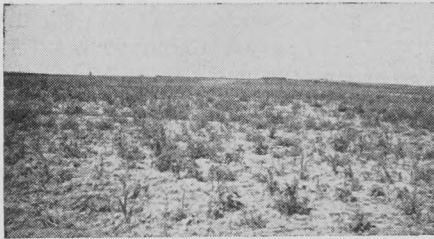
Weeds, insects and disease are all detrimental to the success of segmented seed. The tremendous growth of weeds after the early June rains caused some loss because labor refused to do the work regardless of the price. The weed growth sapped the moisture and stunted the beets which were then past the saving stage. Insects and disease thin the stand of segmented seed where the dense population of whole seed can withstand a more severe hazard.

The advantages of the use of segmented seed are now looming high in the eyes of those who can control weeds, eliminate insects and determine the amount of seed required to obtain an ideal stand. More seed is required for mechanical than hand operation. Frost and wind are factors which have detrimental effect on segmented seed. Better preparation of seed beds will insure success.

This year segmented seed is comparable to whole seed in taking it on the chin in spite of the hazards. There has been an increase in its use over all previous years. Segmented seed users have had a preferential labor rating and little trouble in getting workers to come and do extra thinning over and above their regular contract; many groups did two and three times their usual acreage because of segmented seed. This was accomplished by the use of

Watch The Webworm

E. Bennion



Worm Lunch at \$40.00 per acre

This picture was taken on the 30 acre field of John Shimek of Picture Butte in August 1940. This crop had received its full leaf growth and it was cut off in four days by an infestation of webworm.

The webworm infestation has not been of a serious or general nature during the past few years, but it is always good policy to watch fields carefully when webworm moths are flying. There were sufficient moth flying this year to cause serious damage to the crop if weather conditions had been ideal for the propagation of the worms. A serious outbreak results from hot and dry weather conditions after the eggs have been laid.

Avoid weedy fields and keep head and fence lines clean of weeds. Irrigation will have a deterrent effect on the infestation of these insects.

There are usually two broods in a year, generally, one in June and the other in August, so it will be good business to watch for outbreaks if flights of moths occur.

Stewart Grower Took No Chances

After having gone to a great deal of work and expense to prepare summerfallow for his 1947 crop, John Liska took no chances on losing the surface moisture when preparing his beet land for planting. In the picture he is shown pulling a cultivator, diamond harrow and packer in one operation.

One more harrowing put the seed bed in fine shape as evidenced by the excellent crop to be seen there now.



Conserving Gasoline and Moisture

Seed Placement Only First Step

F. R. Taylor

Precision placement of seed has turned the corner, but is perhaps still a little "dizzy" as to where it is going. Several drills will now distribute segmented seed efficiently but there is yet much to be done towards stabilizing the placement of seed in the soil.

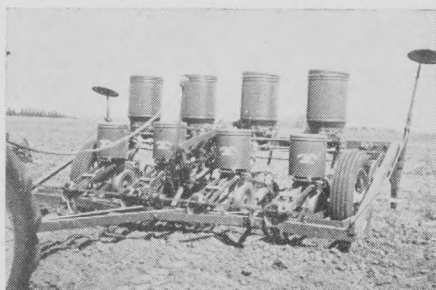
Insofar as spring germinating problems vary in each district, to the same extent will the method of seed placement be regulated, i.e., same areas calculate on an irrigation to bring up the beets and are only concerned with shallow planting. Another district figures on no irrigation. The problem there is to put the seed into the soil in such a manner as to insure germination and emergence.

In their enthusiasm to insure germination, farmers sometime fail to give sufficient importance to "will they make it out"; sometimes they do not.

The use of runners or disks is usually the question, with various combinations of either very often in general use. However, whatever the method, there is only one correct result: **THE SEED MUST BE PLACED IN A PACKED, UNDISTURBED CUT IF MOISTURE IS TO BE RETAINED.**

Combinations of clod scufflers in front of runners with extra trips over to insure a packed mulch have been very successful. From districts where mound covering has been used, come encouraging reports. It all adds up to prove that saving the top 2" of moisture is so important that subterfuge and expediency must sometimes be resorted to.

Machine companies are still looking for improved planting units but in perfecting seed distribution and fertilizer placement, we cannot discount seed placement.



1946-47 J. D. Precision Drill

In many respects a farmer must be a drill expert. He should know exactly where and how he wants his seed and fertilizer placed. We have our ideas, but nevertheless this is a proven fact. **SEED MUST BE PLACED IN FIRM MOIST EARTH TO GERMINATE.** Emergence is reduced in direct proportion to extremity of depth. Keep it in mind this winter when you are thinking drills.

1947 Cross Blocking Trial

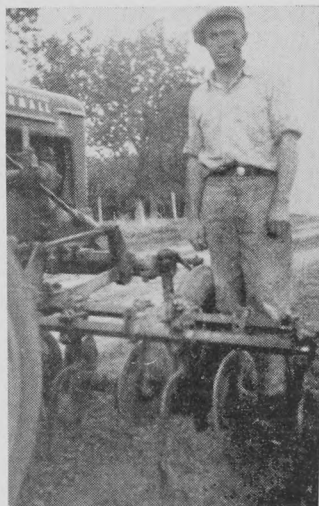
J. G. Snow

During recent years much research and progress has been made toward mechanizing sugar beet production with a view to eventual elimination of all hand operations for which labor is so difficult to secure.

Segmented seed, precision planting, mechanical loaders and harvesters are all steps in this direction. The hurdle which must finally be overcome, however, before total realization is attained is satisfactory mechanical thinning.

In order to gain some experience with this operation on a practical field scale, several fields were planted last spring with mechanical thinning as the objective.

One of these was on the farm of F. F. Hubert, of Coaldale, which is operated by two sons, Dave and Pete.



Dave and the Tools

The tests were carried out on a 17 acre field divided into two parts at right angles to the direction of planting, one 12 acres and the other 5 acres. The 12 acre portion was handled in the usual manner by contract hand labor while the 5 acre portion was thinned mechanically. Thus hand labor results and mechanical thinning results could be compared under the same field and stand conditions.

The entire field was very free from weed growth having grown beets the previous year and was cultivated in the usual pre-thinning manner throughout.

In order to be successful, three very practical problems must be met and overcome:

1. *Securing an emergent stand of* beets that is uniformly spaced so that a high percentage of singles will be left in all potential "blocks" yet not so many multiple plants that hand singling becomes necessary. To attain this, slightly over 4 lbs. of segmented seed per acre was planted with a No. 55 John Deere four-row runner drill.

2. *The stand must be counted* so that the proper tools and size of block best suited to pre-thinning stand can be used. To do this the marker shown at the left was thrown at random into the field at ten different places, then counting the number of inch spaces which contained beets. Averaging the counts revealed 20 of the inch spaces in every 100 inches contained beets to give what is known as a 20% stand, 30 beet containing inches would be 30% stand, etc.



An Accurate Count is Important

A little further study shows that this means average spacing of 5" so our problem was to eliminate approximately one half of the beet plants in the field and yet leave the remaining plants so that best spacing would result, in other words cutting half the space and leaving half undisturbed would accomplish that end.

3. *Doing the job*—several tool sets were used, viz.:

(a) One side of a beet cultivator was equipped with knives set to cut 4" and leave 2"—the other side small I.H.C. duckfeet set to cut 4" and leave 2". This was soon abandoned as the 2" blocks were so narrow the beets were all pulled out.

(b) The same tools set to cut 4" and leave 4"—both gave good results and resulted in approximately 65% of the 4" blocks having one or more beets (result is shown in picture at left.)



The Finished Job

bean weeder illustrated on page 16 has been used quite effectively for this purpose in some U. S. beet districts.

(c) Discs and duckfeet set to cut 7" and leave 4"—good results but only approximately 50% of blocks had beets.

(d) Cross harrowing with a lever harrow to eliminate surplus plants was tried but beets were so large that very few were destroyed. This should be effective at the proper stage of growth, however. The finger

CONCLUSIONS

1. The 20% stand while almost ideal for long handle hoe thinning did not give the uniformity necessary for good mechanical thinning.

From 35% to 45% would seem to be the ideal range. However, these plant populations would entail considerable finger work.

2. Hand thinned portion gave 75 beets per 100 ft. of row after thinning.

3. Mechanical treatments gave equal or better number of plants per 100 ft. of row but many of them were 4" or less apart.

4. Rate of seeding where cross blocking is intended should not be under 5 lbs. segmented seed per acre.

5. At the time of regular second hoeing on the hand worked portion, all the mechanical treatments were hoed with instructions to remove all weeds and all multiple clusters of beets above two; to leave all singles farther than two inches apart and to do no finger work. This was done at an hourly rate of 75c which was about the same labor earning realized in the contract thinning. Cost per acre on this basis was \$8.00.

6. Mechanically treated plot was carried to August 1st with a net per acre saving of \$8.50 per acre after allowing \$2.00 per acre for mechanical work.

The Economics of Farm Machinery

We are rapidly approaching mechanization in the beet industry in Southern Alberta, especially on the larger farms in most districts. Machinery has been scarce during the war years and recent increases in price will have a tendency to make farmers calculate the economics of machines and to purchase wisely.

The shortage of labor in some localities combined with a lack of machines to fill the needs has produced a steady demand for almost any kind of implement. Some machine companies are withholding the sale of a tractor unless the farmer purchases a harvester regardless of the number of acres he has in beets. Labor saving equipment should be based on the economics of the farm, namely the level of net earnings. Machinery should be bought to suit the farm and not the whim of the grower. The line of equipment should be within the limit of what the farm can pay and still leave a fair net profit for the operator.

The exception may be justified when a grower is in position to acquire more land or work his machinery to capacity by doing custom work for his neighbors. There is no sorrow greater than regret, nor more embarrassing humiliation from the eyes of the neighbors than over the useless proverbial white elephant in the yard which cost so much and did so little.

Field Demonstration Introduces New Farmall



A Field full of Farmall Cubs kick up their heels

A special introduction and demonstrating program featuring International Harvester Company's new, small, low-cost Farmall Cub Tractor was arranged by Lethbridge Branch for four days beginning Monday, July 7th, at the Dominion Experimental Farm.

An invitation to participate in the demonstration "to get the feel" of the all-purpose Farmall Cub at work was extended to all International Harvester dealers located in the Lethbridge territory, so that they could determine first hand the economy and efficiency of this small farm power plant.

Commenting on the new tractor after "getting the feel," B. C. Axelson, branch manager, said:

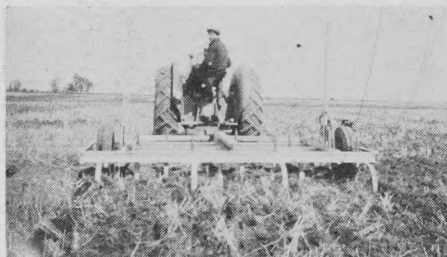
"The Farmall Cub represents the latest step in the evolution of farm mechanization. Its development readily meets the power requirements of thousands of the nation's small acreage farmers and presents the first opportunity for the operator of the small family size farm to mechanize at a price he can afford. The price of the tractor is \$545.00 f.o.b. Factory. A full line of attachments and implements are available at extra cost."

"Pulling a single 12-inch moldboard plow, the Farmall Cub will plow up to 3½ acres per 10 hours in most soils, and will cultivate one to four rows of crops at a rate of better than one acre per hour. And yet, the fuel consumption of its four-cylinder, four-cycle engine under maximum load is considerably less than one gallon of gasoline per hour."

"Designed specifically for use by small general farms, industrial workers who divide their time between industry and the farm, truck farm operators, orchardists and large general farms needing auxiliary units, the Farmall Cub is being introduced into the Farmall tractor line in response to the desire of the small acreage farmer to compete on a comparable basis with farmers of larger tracts."

New Tools Make Their Debut Here

Here are some farm implements which are being used and offered for sale in our beet areas. They were observed in action during the spring and summer and are presented here as news items and are not endorsed or condemned as experience will establish that.



Yes, says this Operator
**SEAMAN ROTARY
TILLER**

A series of demonstrations were put on in the beet districts during July demonstrating the Seaman Tiller. This is a rotary type implement similar to others recently appearing locally. The accompanying picture shows a group of Coaldale beet growers observing the machine at work and discussing its merits on the farm of W. B. Grunewald, president of the Coaldale Beet Growers organization.

GRAHAM-HOEME PLOW CULTIVATOR

Doing early summerfallow work on the farm of Leland Burr where it was also used extensively for other spring work including preparation of beet land. Many have been sold in Southern Alberta since last fall when it first appeared on the market here.



Gentlemen of the Jury
observing the machine at work and discussing its merits on the farm of W. B. Grunewald, president of the Coaldale Beet Growers organization.



The I.H.C. Finger Weeder

FINGER WEEDER

One of the tools demonstrated by I. H. Co. at the Lethbridge Experimental Station in July was the finger bean weeder pictured here. According to reports from beet growers in the U. S. this tool is very valuable for thinning and weeding sugar beets where mechanical thinning is necessary. Its

use here will be followed with a great deal of interest.

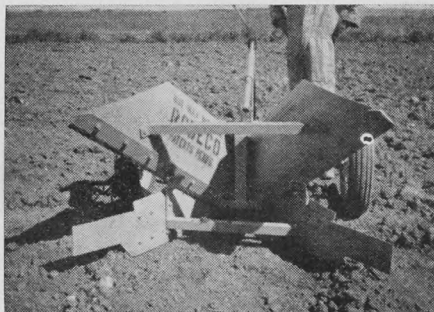
PORTER DITCH FILLER



One More Irsome Task Becomes Routine

This filler was invented by Fred S. Porter of Taber, Alberta, and is designed to fit any tricycle type tractor. It is adjustable as to width and depth as may be required to fill any field ditch.

It is especially useful in the sugar beet fields and also preceding the harvest of green peas. It will be in production in Canada and the United States in 1948.



ROBECO TRENCHER

This trencher is designed to make a shallow trench in which to windrow the topped beets so that they can be picked up more easily by the beet loader. It is shown attached to a Robeco ditcher which makes it a very mobile unit.

This trencher is in production for sale in the United States and Canada this year by Robinson Machinery and Development Company.

Calgary Firm's Two in One Implement

The secret of successful saving is to spend what you have left after saving, instead of saving what you have left after spending.

The best place to find a helping hand is at the end of your own arm.

Overhead Watering Makes It's Appearance In Montana

K. E. Pilling



Jupiter Pluvius Can at Least Be "Turned On" at Will

In the Missoula factory district of the American Crystal Sugar Co. an interesting development is under way this year for irrigating beets and general farm crops. Overhead watering systems are being sponsored for especial use on irregular or rough lands. Seven systems are in use in the Flathead Valley and three in the Bitter Root Valley in this their initial year.

The accompanying picture above was taken at the farm of Atkinson & Sons, west of Charlo, in the Flathead Valley. Water was taken direct from a lateral and for this type of system pumped by a centrifugal pump driven by a gasoline engine through a main 6" pipe and distributed with a 4" pipe through small holes drilled at an angle, watering a strip (without wind) forty feet wide at each setting. This setup puts one inch of water on two acres in two hours. The aim is to match the time and amount of water put on with percolation and avoid run off.

All pipe is aluminum for light weight, with rubber settings at connections and quick lock joints. One-half mile of distribution pipe can be changed in fifteen minutes. The main feed pipe is equipped with a "T" connection near the pump so that if sufficient distribution pipe is available water may be switched with no lost time while changing the setting.

The other type consists of a rotating nozzle setup, throwing a long and short stream and making one complete turn in ninety seconds. Overhead watering shows excellent promise for use on hilly or steep uneven lands.



Mechanical Irrigation

gates in the pipe regulates the flow of water to each row. Cost of the pipe was \$2.00 per foot. At the time of our visit one man had just completed the irrigation of this 42 acre field in 30 hours, using this system.

WHY WASTE MACHINERY

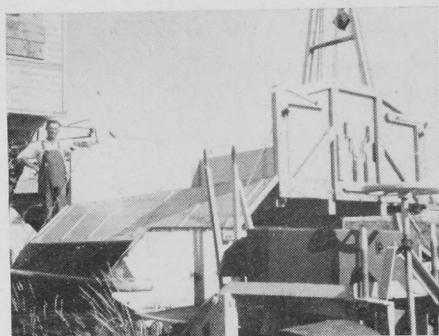
All implements and machines, even if laid up for only a few days, should be thoroughly lubricated immediately after being used. This affords protection to bearings, and other critical points.

Implements and machines that are to be laid up until the next season should have special attention. Especially bearings, wood, rubber, and canvas parts. The first step in preparing machinery for seasonal storage should be a thorough cleaning, removing all dirt and refuse from cracks and other places that may accumulate moisture resulting in rust. After cleaning, paint over all spots where the metal is exposed. Following this, give the unit a thorough lubrication, and apply a good rust preventive to shares, moldboards, sickle sections, and guards. Then store in a clean, dry place.

An air-tired machine should never be stored with the weight of the unit on the tires. Always jack the machine up taking the weight off the tires, preferably taking the tires off and storing them in a cool, dry place, making sure that the tires are free from grease and oil. (Many tire companies recommend washing them with gasoline.) Inflate the tires to normal pressure and paint them with a rubber preservative before storing.

Canvas parts should be removed and brushed as clean as possible, then rolled up and stored in a clean, dry place. To avoid damage by rats and mice, suspend these parts from rafters by wires. The canvas should be covered with building paper to prevent damage by birds.—
(Cont.)

Two-Way Beet Racks



Two-Way Piler—Two-Way Rack

During the 1947 beet harvest the Sugar Co. will have five pilers in operation equipped to handle both right and left hand dumping racks.

Unless growers' beet racks are built or remodelled to take advantage of the double platform units much of their value will be lost and growers will have to wait their turn on the side of the piler which they are equipped to use.

Working models showing the pipe and hinge construction have been placed in all districts. If you are building a new rack or remodelling the old one to a two-way dump, consult your fieldmen, who will be glad to show you how simply this can be accomplished.

Attention to the following details of construction or overhaul of old racks will greatly speed up unloading.

1. Tight door construction so that dirt is not spilled.
2. Chain on door to prevent falling clear down avoids spilled beets and dirt.
3. Door catches which are easily fastened and unfastened.
4. Checking of hoist chains and linkage so that breaks will not occur when loads are lifted.

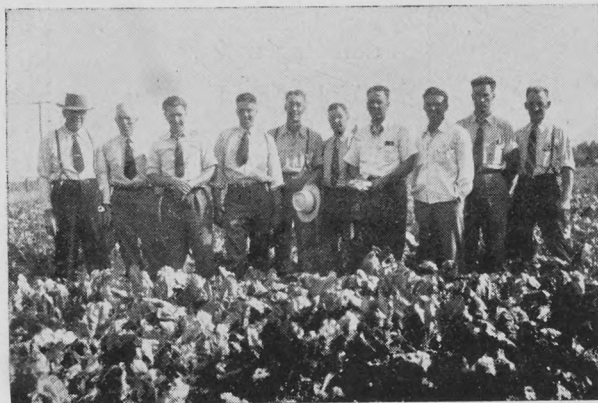
Irrigation can be carried on indefinitely given good water management through adequate attention to drainage, accumulation of salts and proper attention to crop rotation to restore sufficient humus.

Mrs. X was forever exchanging confidences with her maid. "You know," she said cozily, "I think Mr. X is taking his secretary out."

"O, go on Madam," the maid bridled, "You're just trying to burn me up."

Albertans Visit Montana Districts

On July 19 to 21 last the Company Agricultural Staff and K. W. Hill of the Dominion Experimental Station, made a brief tour of the Flathead, Bitterroot and Fairfield irrigated areas in Montana.

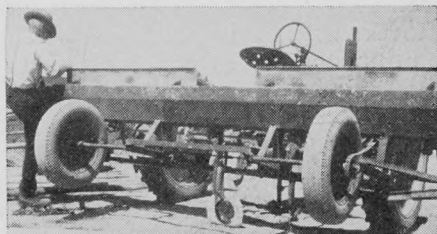


South of the Border

Here the group is snapped in an outstanding field of beets while guests of the American Sugar Company who operate a factory at Missoula.

Some of the lasting impressions carried away were:

1. In the Flathead and Bitterroot Valley, almost complete lack of crop rotation as prevails in Alberta; a very small percentage of irrigated land growing small grains as cash crops, with a great percentage of land down to hay and pasture, which is the backbone of a large dairy industry throughout the area. Yields are being maintained by manure and commercial fertilizer.
2. Extent of electrification and rural development in the Bitterroot Valley.
3. Similarity of the Fairfield area to our own Alberta districts both as to cropping practices and topography.



Side Dresser Ready to Go

4. Substantial increase in beet yields obtained through side dressing with 200-400 lbs. nitrate fertilizer after thinning and before the first irrigation.

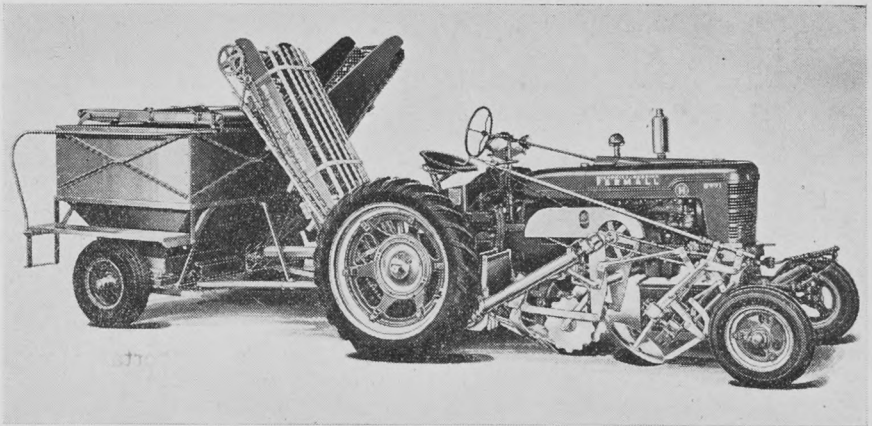
5. Effective use of overhead and pipe watering systems described in detail elsewhere in this issue.

Balance Is Necessary In The Use of Harvesting Equipment

W. G. Smith

Beet harvesting machines are employed to perform more work with less labor at a lower cost than can be accomplished by hand. The success of the grower in achieving these results depends on his ability to keep the machines running, to turn out the work, and to do as good a job or better than by hand.

In Alberta, the sugar beet harvest period is short. Adverse weather conditions shorten the time in which the work can be done. Speed is necessary to complete the harvest before freeze-up. The start of the harvest is delayed until the beets are ripe and until the weather is suitable for storage. Years of experience indicate that the beet harvest should be completed by October 25th. Weather after that date is uncertain.



I.H.C. Harvesters Will Be Available in Alberta This Fall

Since machines play an increasingly important part in the beet harvest, it is essential that they turn out the work and complete the job before freeze-up. As a matter of fact, it is hoped that machines will shorten the harvest period by a later start and lengthen the growing period to increase yields. Failure to complete the job may be attributed to mechanical trouble, to delays through faulty organization of crews and to unfavorable soil conditions.

Delays through mechanical troubles can be minimized by completing all repairs and by having the machines in good running condition before the harvest starts. Secure repair parts early in the season.

The organization of the crew is as important as the men and machines which comprise it. The work of harvesting may be broken down into several jobs, namely: lifting, pulling, topping, loading and hauling. The Keist machine adds two more jobs—hauling and stacking tops. The ideal set-up is to have all jobs performed at such a rate that none slow up or get too far ahead of the others. The number of men and machines in the crew will depend on the acreage to be harvested. Conditions vary so much on the individual farms that no specific recommendations can be given except to keep things rolling.

Unfavorable soil conditions interfere with mechanical harvesting. Toppers are stopped by wet muddy fields. Loaders will work in muddy fields as long as the machine can be pulled and the beets hauled away. Ordinarily, the harvest period is sufficiently dry to permit the completion of the harvest with machines. Mechanical toppers do not satisfactorily separate clods from beets. **AN IRRIGATION JUST PREVIOUS TO TOPPING MAY BE NECESSARY TO ELIMINATE CLOUDS FROM THE SOIL.**

Beets windrowed for mechanical loading cannot be satisfactorily covered overnight to prevent frost injury. An attempt should be made to have no windrowed beets in the field overnight. At least some of the receiving stations will stay open late at night.

The quality desired in mechanical topping is the same as that desired for hand topping. All leaves should be removed from the beet. Some beets do not grow vertically and some are pushed over by the machine. These beets will be poorly topped. It is usually customary to have one man follow up the machine to trim poorly topped beets. Trimming should not require a man's full time.

The quality of mechanical topping is governed by the adjustment and operation of the machine. Frequent adjustment may be necessary on some fields. Expert operation is a matter of experience and observation. Topping machines are so new in Alberta that it is doubtful if there are many expert operators. Those who have learned to operate a topper have done so with little guidance. To assist in the training of operators, it is proposed to hold a short course on topper operation. Watch for further announcements.

One advantage of the mechanical topper is that harvesting costs can be reduced. A study of the cost of operating toppers last year reveals a wide variation in individual grower's costs. Costs ranged from 60c to \$3.88 per ton of beets. This wide difference is due largely to the acreage topped. Machines topping a small acreage had a high

unit cost per ton because depreciation was estimated on an annual basis regardless of the acreage topped. Increasing the acreage lowers the unit costs.

Another important cost item is labor. Many of our machines are supposed to be operated by one man yet two men were found on some machines. On one farm with low costs, one man operated both topper and loader. On this particular farm all the beets were topped and loaded mechanically and hauled to the receiving station by two men at a very low cost.



Over 300 Loaders Will Speed the 1947 Harvest

loaded beets, is the amount of tops mixed with the beets. Some loads have a minimum of tops thus indicating that hand toppers can make a better separating of leaves from beets.

Another labor and time saver is the beet wagon hoist to unload dirt. This device is simple to make and soon pays for itself. Details were given in this magazine two years ago.

Efficiency in the beet harvest includes the operation of the individual machines as well as the general management of the whole operation. When all machines, including toppers, loaders, hauling equipment and lifters are operating smoothly with an adequate crew, harvesting can proceed as efficiently and as cheaply as weather will permit.

There are two things needed in these days, first for rich men to find out how poor men live; and, second, for poor men to know how rich men work.

A large number of loaders are now used throughout the area. As long as these machines are kept in operation, they do not cause a bottleneck in harvesting operations. Some owners found their tractors too small in muddy fields. Loaders have speeded up hand topping. One of the things giving concern in mechanically

People You Should Know

EDWIN H. PRICE, FACTORY SUPERINTENDENT, TABER



After ably serving Canadian Sugar Factories for a period of twenty years, it was announced in the spring of 1947 that Edwin H. Price had been appointed Superintendent of the new Taber Sugar Factory.

Born in Salt Lake City in 1893, Eddie migrated with his parents to the town of Magrath. This same year the family moved to Taber where he spent his early youth. He received his education in Taber schools and was active in all phases of school and church activities.

"Eddie" was one of the earliest sugar beet growers in the Taber district where he still has interests in a beet farm. In 1928 he entered employment with Canadian Sugar Factories, Raymond, as a crane man and worked there in several capacities until the construction of the Picture Butte factory in 1935 and 1936. Here his activities were directed on general construction lines and mechanical supervision as assistant master mechanic.

He is an active community and church worker, having served in the Bishopric of the L.D.S. Church at Picture Butte for eight years, where he will be greatly missed. Taber claims him as a native son and is proud and happy to have him back in his present capacity..

Eddie is a Canadian Welshman, with all the warm hearted quick responses of his musical race. With three children in the family, two boys, Darwin and Bernard, and a daughter Jolayne, now Mrs. A. W. Hill, he and his wife have been enjoying the thrill of their first grandchild during the last few months.

JOHN MILLER, MASTER MECHANIC, TABER



Born in Scotland in 1887, Jack, as everyone calls him, chose to spend his early youth in complete training in electrical and steam engineering. In 1912 his desire for travel and a chance to broaden his career brought him to Canada where he was employed as an engineer with several coal and oil companies in Alberta and British Columbia. His first contact with the Sugar Company was at Raymond in 1930 when he was employed as assistant master mechanic. He continued on in this capacity for fourteen years, at which time he was transferred to Picture Butte. His latest

move was to the new factory site at Taber where he is now construction engineer.

Jack and his good wife Jessie, have two children, both of whom are married.

As a sober Scotchman, our new master mechanic will calculate every pipe line and fitting which goes into the new mill. There is no room for doubt that every piece of machinery will run when needed. At that, we expect Jack will still find some time for fishing and family visiting.

JOHN L. ALLEN, CASHIER AND CHIEF ACCOUNTANT



Following the death of A. H. Zabriske, Mr. Allen was appointed to his present position on November 1st, 1942, with headquarters at the Raymond Factory.

Prior to this time, he served as accountant from October 1931 for about four months and steadily from March 1933.

John Allen is a native son of Raymond. His father, Heber S. Allen, was the pioneer merchant and Stake President. He received his public and high school education in Raymond, graduating in 1922. The next few years were spent in mission service and at the B.Y.U. in Provo where he received his B.Sc. in June 1930.

Since returning to Raymond, he has acquired a charming wife, Amy Judd Allen and two children of talent, a boy and a girl.

For a number of years he was President of the Young Men's Mutual Improvement Association of the Taylor Stake and recently was called to serve as counselor in the Stake Presidency.

John has one absorbing hobby and that is to find a balance. He has tracked down balances, until they finally give up in despair and all is peaceful once more on the accounting front.

Quiet, courteous, conscientious and efficient, he is one of the best loved and respected executives of our Company.

Ridicule a man's hobby and you've made one more enemy.

R. S. O'BRIEN, OFFICE SUPERVISOR, PICTURE BUTTE



R. S. O'Brien, or "Dick" as he is familiarly known to his many and widespread friends and acquaintances, is one of the youngest old timers in the beet sugar industry in Southern Alberta.

He was first employed at Raymond by the Utah-Idaho Sugar Co. in 1925. In 1928 he became beet clerk there and continued as such when Canadian Sugar Factories took over in 1931. He continued in this capacity until coming to Picture Butte in 1935 as Accountant, and was later promoted to Office Supervisor, which position he now fills.

Dick is active in public affairs being Secretary Treasurer of the local branch of the Red Cross Society since its organization here. He was first secretary of the Picture Butte Board of Trade. He is an ardent sportsman, being first Vice-President of the local Picture Butte Athletic Association and is Assistant Manager of the Picture Butte Royals Baseball Club. He was a former basketball player and outstanding star for the Raymond Union Jacks, perennial senior basketball champions of Alberta. In this capacity he was known as "Dead Eye Dick."

His present staff of assistants consists of H. M. (Buss) Quinnell, in charge of the stock room; Beverly Cheeseman, time keeper, and office assistants Irene Holcek and Zora Kadezabek.

FRED. H. TURNER, OFFICE SUPERVISOR, TABER



Fred is a native of Southern Alberta and is well known in these parts. Making a short review of his activities, Fred first saw the light of day at Magrath in 1913. Misfortune struck him early as Old Timers will remember Fred's father being drowned in the Mendenhall Lake shortly before his birth.

He received his schooling in Magrath and at the tender age of 18 entered Normal School. Subsequently he taught school at Magrath.

Fred has been very active in the field of athletics, shining most brightly on the basketball court. His name is known wherever good basketball is played in Canada. In Magrath he got an early start into basketball in the schools there and continued on through Normal School. He played with the Lethbridge Y Aces for one season

where he proved to be a near tragedy to the title of the famous Raymond Union Jacks. At Raymond he played outstanding ball on the Jacks' Club for 13 years, being coach for 8 years. He participated in many Dominion playdowns.

His work with the Sugar Co. began in the sugar room. When the construction of the Picture Butte plant began in 1935, he was moved there as storekeeper and remained until 1938 when he returned to Raymond as timekeeper. Following Mr. A. H. Zabriske's death, Fred was made accountant in the head office. At Raymond, he was the Secretary of the Beet Growers Co-Operative Credit Society. He may also be complimented as being one of the original instigators of the Raymond Sugar Makers Credit Union which has been so successful.

With the beginning of activities at the new plant in Taber in early 1947, Fred was appointed as Office Supervisor.

In 1936 he married Iona McMullin. Two children, Jimmy and Linda, have since made their home happier.

If you were to ask Fred about a hobby he would probably "draw a bead on a ringneck" or tell you about the time he "made a hole in one off green 16."

His many friends wish him success in his new undertaking, and we know he will measure up well to his responsibilities.

When a company's ace salesman was transferred from New York to Chicago, his boss sent along a letter explaining that while he was the company's best salesman, he had one serious vice—gambling.

When he arrived, his new boss said, "Young man, I'm sorry to hear that you like to gamble. What do you bet on?"

"Anything," answered the salesman. "For instance, I'll bet you \$25 that you have a mole on your right shoulder."

"I'll take that bet," said the sales manager, and peeled off his coat and shirt. The salesman paid off, and his new boss wrote New York about the incident, boasting that he had already taught the young man a lesson.

In a few days he received this reply: "He wins again. Before he left he bet me \$200 that he would have the shirt off your back five minutes after he met you."

A man doesn't begin to attain wisdom until he recognizes he is no longer indispensable.

Retiring Employees



A. L. McMULLIN

In 1925 during the construction of the Raymond factory, Alfonzo was one of the carpenters and millwright. He carried on carpentering for several years during which time he was mechanic for one shift through the run. From about 1929 until his retirement, he acted as mechanic for the intercampaign season as well as during the beet campaign itself. He retired June 28, 1946.

"Fon," as he was known to his many friends, was always a leader and a conscientious worker. Even under conditions of poor health he persisted in doing his best. He is enjoying his long earned rest by keeping busy doing the work he likes. Cabinet making is his hobby.

W. P. LITCHFIELD



Started working for Canadian Sugar Factor-ies Ltd. in 1925 on the evaporator station. Later the same year he worked on the pan floor as sugar boiler. This was to be Parley's Job for the next 21 campaigns. Early intercampaign periods were spent in the sugar room and later on he did tinsmithing and other repair jobs around the mill. He retired February 28, 1947.

Parley says he misses his work, but home responsibilities fill in the gap. He is not one to idle his time. The smell of cooked juice will see Parley not too far from a sugar factory again.

It can be truly said of both of these retiring men that they were dependable, faithful and efficient in the jobs they had to do.

Give the other fellow your reasons. If they convinced you, maybe they'll convince him.

We ought to be proud of the capitalistic system. Other systems promise their people the good things of life. We've got them.

SILVER SUNSHINE

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CANADIAN SUGAR FACTORIES LIMITED

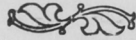
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He that does good for good's sake, seeks neither
praise nor reward, but he is sure of both in the end.



Old? Yes With New Ambitions

The Raymond Sugar Factory (shown hereon) portrays the changes, growth, and inevitable improvement incidental to progress in the manufacture of sugar. This year and next will see its sugar end completely remodeled and improved to the very latest standards. Four new sugar storage bins were built last year.

The remnant of the old pioneer plant built in 1903 is shown in the background. Though built twenty years too soon it served to keep alive the idea of the importance of sugar beets and irrigated farming, and also their value towards a stable population.

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1947

Canadian Sugar Factories Ltd.
Raymond, Alberta

